## REMARKS

The non-final Office Action of November 28, 2005 considered and rejected claims 1-7 and 9-20. Claims 1-7 and 9-20 were rejected under 35 U.S.C. 103(a) as being anticipated by Kaasila (U.S. Patent No. 5,155,805) in view of Stamm (U.S. Patent No. 6,249,908).[1]

By this paper, claims 1, 16, and 20 have been amended, claim 21 added, and no claims have been cancelled.[2] Accordingly, following this paper, claims 1-7 and 9-21 remain pending, of which, claims 1, 16, and 20 are the only independent claims at issue.

As reflected in the claims listing above, the present invention is generally directed to embodiments employing methods for dynamically determining one or more directions of freedom for one or more control points. As recited in claim 1, for example, this may be accomplished in a computing system that has access to a set of control points used to generate an outline of a graphical object, while the outline is used to determine how the graphical object is rendered on a pixel grid while some control points are constrained to pre-determined locations. As recited, this method includes identifying a first direction of compliance and, based on the first direction of compliance, automatically and dynamically determining a first direction of freedom in which the control point can be moved to comply with the first constraint, such that the movement of the control point in the first direction of freedom has a reduced likelihood of causing non-compliance with other constraints. As further clarified by the amended claim, the first direction of freedom is automatically and dynamically determined without the use of hinting instructions that specify the first direction of freedom.

The claimed embodiments recited in the other independent claims (16 and 20) are directed to methods and computer program products, respectively, for dynamically setting the direction of freedom vectors in computing systems, and generally correspond to the method recited in claim 1.

---

[1] Although the prior art status and some of the assertions made with regard to the cited art is not being challenged at this time, Applicants reserve the right to challenge the prior art status and assertions made with regard to the cited art, as well as any official notice, which was taken in the last office action, at any appropriate time in the future, should the need arise, such as, for example in a subsequent amendment or during prosecution of a related application. Accordingly, Applicants' decision not to respond to any particular assertions or rejections in this paper should not be construed as Applicants acquiescing to said assertions or rejections.

[2] Support for the claim amendments, may be found within the Applicants' application as originally filed. For example, the claim amendments and new claim are clearly supported by paragraphs [0018]-[0020], [0030], [0040], and [0057]-[0059], among other passages throughout the specification. Accordingly, it is respectfully submitted that amendments to the pending claims do not add new matter, and entry thereof is respectfully submitted.

Kaasila, the Examiner's principal reference, is generally directed to specifying projection and freedom vectors in font instructions to facilitate moving control points in displaying digital typeface on raster output devices. However, Kaasila fails to disclose or suggest the method recited in the pending claims. For example, among other things, Kaasila fails to disclose or suggest a method or system which includes dynamically determining a first direction of freedom based on a first direction of compliance, particularly without the use of hinting instructions that specify the first direction of freedom, as claimed. In fact, Kaasila teaches the exact opposite and specifically teaches manipulating a font outline by setting freedom vectors based on font hinting instructions which explicitly specify the directions of both freedom and projection vectors.

For example, Kaasila discloses specific pre-programmed font instructions for maintaining the symmetry of a lowercase "o" and for maintaining a diagonal stroke weight of a capital "Y" (Col. 7, ll. 55-64). With reference to the lowercase "o" (see Figure 8 and the accompanying description), Kaasila teaches creating font instructions in which the "Projection and Freedom vectors are set in default to be both in the x-axis," and moving the control point along the x-axis. (Col. 8, ll. 20-26). Kaasila also teaches that following movement of the control point along the freedom vector aligned with the x-axis, the font instructions simultaneously set projection and freedom vectors along the y-axis. (Col. 8, ll. 20-26, Figure 8).

Kaasila also discloses a second embodiment in which a capital "Y" is manipulated (see Figures 12A-13 and the accompanying description). With reference to this embodiment, Kaasila discloses "the application of font instructions including Delta exceptions and Projection and Freedom vectors to adjust the diagonal strokes of Y." (Col. 10, ll. 14-17). In this embodiment, Kaasila discloses that the font instructions specify the direction of both the projection and freedom vectors along a y-axis. (Col. 10, ll. 19-22; Figure 12, ll. 7). Subsequently, the font instructions set a second projection vector parallel to the portion of a font outline defined by the line 1-0, and then rotate the second projection vector to be perpendicular to the line 1-0. (Col. 10, ll. 21-26). Thereafter, font instructions specify that a second freedom vector be set parallel to a portion of the font outline defined by line 6-7, thus defining the direction control point 7 will be moved. (Col. 10, ll. 26-31). A similar instruction is included for specifying the directions of third projection and freedom vectors (Col. 10, ll. 38-43). Specifically, the instructions specify that a third projection vector be set perpendicular to line 5-4, while the third freedom vector is specified to be set parallel to line 7-8. (Col. 10, ll. 39-43).

Accordingly, although Kaasila describes setting a freedom vector and moving control points along the freedom vector, the directions of the freedom vector is explicitly specified by hinting instructions, and Kaasila fails to disclose or suggest dynamically determining a first direction of freedom without the use of hinting instructions that specify the first direction of freedom, as claimed as a whole in combination with the other recited claim elements.

Applicants also respectfully submit that the cited Stamm reference also fails to remedy the deficiencies of Kaasila. For example, Stamm fails to teach dynamically determining a first direction of freedom without the use of hinting instructions that specify the first direction of freedom. In fact, Stamm specifically directed to *creating hinting instructions* which may be used to represent graphical objects (Col. 18, ll. 45-49). As taught by Stamm, commands representing an edited glyph are stored in a data structure. (Col. 18, ll. 49-53). Among other information, the data structure expressly specifies the freedom direction of a control point (Col. 9, ln. 59 to Col. 10, ln. 6; *see also* Figs. 4c, 5b, 6b, 7b, 8b, 9b and 10b). The data in the data structure, including the specified freedom direction, are then compiled into high-level hinting instructions which are, in turn, compiled into true-type font instructions. (Col. 8, ll. 5-14, Col. 18, ll. 53-55; Figs. 3 and 11). These font instructions are further compiled into machine code and used to display rasterized results of a glyph. (Col. 8, ll. 5-14).

In other words, Stamm teaches that a font is rendered by including a direction of freedom for a control point and, accordingly, fails to teach dynamically determining a first direction of freedom *without the use of hinting instructions that specify the first direction of freedom*, as claimed. Even more specifically, Stamm in addition to failing to teach determining a first direction of freedom without the use of hinting instructions, Stamm fails to teach wherein a set of control points does not specify the first direction of freedom, as claimed (claim 21).

Accordingly, for at least these reasons, Applicants submit that the independent claims (claims 1, 16 and 20) and dependent claim 21 are distinguishable over the art of record. Although the foregoing amendments have focused primarily on the independent claims, it will be appreciated that, for at least the foregoing reasons, all of the other rejections and assertions of record with respect to the remaining claims, including the dependent claims, are now moot, and therefore need not be addressed individually.

Nevertheless, Applicants respectfully note that the Examiner has failed to supply even an argument that any art of record teaches or suggests each and every limitation of claim 9. In
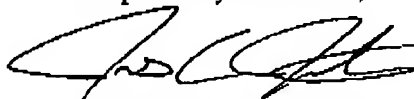
particular, the Examiner has not, in this or any prior Office Action, cited any reference which the Examiner believes teaches wherein 'the first direction of compliance is used to set the second direction of freedom,' as claimed. In fact, despite this limitation being added by Applicants' Amendment "A" dated July 26, 2005, the Examiner has failed to even acknowledge the language added by this amendment. Therefore, Applicants renew all prior arguments made with respect to the limitations of claim 9.

Accordingly, inasmuch as the Office Action fails to even acknowledge the recited claim element of "the first direction of compliance is used to set the second direction of freedom", let alone supply a teaching or suggestion corresponding to the limitation, Applicants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness, and withdrawal of the rejection is respectfully requested. To the extent the Examiner desires to maintain the rejection, and to facilitate prosecution on the merits, Applicants respectfully request a specific recitation of art purported to teach the claimed limitation.

In view of at least the foregoing, it will be appreciated that Kaasila and Stamm, either alone or in combination, clearly fail to anticipate or make obvious the claimed invention. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified though a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 28 day of February, 2006.

Respectfully submitted,

RICK D. NYDEGGER
Registration No. 28,651
JENS C. JENKINS
Registration No. 44,803
Attorneys for Applicant
Customer No. 047973

RDN:JCJ:ccn::ppa